



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/978,634	11/25/1997	ELAZAR RABBANI	ENZ-53(D2)	4640
28171 7590 03/07/2011 ENZO BIOCHEM, INC. 527 MADISON AVENUE (9TH FLOOR) NEW YORK, NY 10022				
EXAMINER				
SHIN, DANA H				
ART UNIT		PAPER NUMBER		
1635				
MAIL DATE		DELIVERY MODE		
03/07/2011		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

08/978,634

**Applicant(s)**

RABBANI ET AL.

**Examiner**

DANA SHIN

**Art Unit**

1635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 January 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 275, 289, 290 and 296-301 is/are pending in the application.
- 4a) Of the above claim(s) 289, 290 and 298-301 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 275, 296 and 297 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### **Status of Application/Amendment/Claims**

This Office action is in response to the communications filed on January 10, 2011.

Currently, claims 275, 289-290, and 296-301 are pending in the instant application. Claims 289-290 and 298-301 have been withdrawn from further consideration as being drawn to non-elected inventions. Accordingly, claims 275 and 296-297 are under examination on the merits in the instant case.

The following rejections are either newly applied or are reiterated and are the only rejections and/or objections presently applied to the instant application.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### **Response to Arguments and Amendments**

#### **Withdrawn Rejections**

Any rejections not repeated in this Office action are hereby withdrawn.

#### **Maintained Rejections**

#### **Claim Rejections - 35 USC § 102**

Claims 275 and 296 remain rejected under 35 U.S.C. 102(e) as being anticipated by Cantor et al. for the reasons of record as set forth in the Office action mailed on July 9, 2010 and for the reasons stated below.

Applicant's arguments filed on January 10, 2011 have been fully considered but they are not persuasive. Applicant argues that the claims are not anticipated by Cantor et al. because Cantor et al. do not teach a polynucleotide binding matrix, but instead teach a multimeric nucleic acid construct hybridizing to a multimeric nucleic acid. It appears that applicant is arguing that the claimed composition is different from the construct of Cantor et al. because Cantor et al. taught "multimeric" nucleic acid binding matrix, instead of "a" single polynucleotide binding matrix. Contrary to applicant's argument, Cantor et al. taught that nucleic acid constructs "may comprise one, two or three species of single-stranded nucleic acids", wherein the constructs "may comprise complementary sets of sequences", and thus "may comprise a double-stranded portion", wherein the two constructs are "assembled" to "facilitate coupling of one or more functional groups.", wherein the functional groups include proteins and hormones. See column 6, lines 30-38, 45-47, 63. Hence, the construct structure taught by Cantor et al. comprise "a" single polynucleotide that binds to a complementary sequence that is coupled to a hormone, wherein the two complementary polynucleotide sequences are assembled, thereby forming a double-stranded portion. As such, all claim limitations are taught by Cantor et al. Since applicant's arguments are not persuasive, this rejection is maintained.

### **Claim Rejections - 35 USC § 103**

Claims 275 and 296-297 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Cantor et al. and Osborne et al. for the reasons of record as set forth in the Office action mailed on July 9, 2010 and for the reasons stated below.

Applicant's arguments filed on January 10, 2011 have been fully considered but they are not persuasive. Applicant argues that the claims are not obvious because neither Cantor et al. nor Osborne et al. teach a binding matrix that is "a polynucleotide". Contrary to applicant's argument, as mentioned hereinabove, Cantor et al. taught a binding matrix consisting of a single polynucleotide sequence, which is capable of hybridizing with a complementary sequence coupled to a functional group such as hormone. Since applicant's arguments are not persuasive, this rejection is maintained.

Claims 275 and 296-297 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Priest and Osborne et al. for the reasons of record as set forth in the Office action mailed on July 9, 2010 and for the reasons stated below.

Applicant's arguments filed on January 10, 2011 have been fully considered but they are not persuasive. Applicant argues that the claims are not obvious because the conjugates of Priest "have a very different purpose than the instantly claimed compositions". Applicant has also asserted that the it would be "counterproductive" because one would obtain a "larger" structure that renders cellular internalization more difficult. In response, it is noted that the features upon which applicant relies (i.e., the "purpose" of the claimed composition is "to increase the activation of the receptor resulting therefrom."; cellular internalization) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). As such, whether or not the "purpose" of the construct of Priest is different from the "intended purpose" of the claimed composition is irrelevant to the

patentability of the claims. In addition, applicant's attention is directed to the fact that the claims do not recite any "functional" limitations. The claims are merely drawn to a multimeric compound. As such, one of ordinary skill in the art would have reasonably arrived at the claimed compound for "experimental purpose" as stated in the last Office action by combining the teachings of Priest and Osborne et al., further in view of the logical reasoning that a multimer comprising more than one identical monomers (insulin) would have an additive concentration of insulin than a single monomeric unit of insulin as established in *In re Kerkhoven* (CCPA 1980). Since applicant's arguments are not persuasive, this rejection is maintained.

### **Double Patenting**

Claims 275 and 296-297 remain rejected on the ground of nonstatutory obviousness-type double patenting over claims 246 and 264-265 of 08/978,632 for the reasons of record as set forth in the Office action mailed on July 9, 2010 and for the reasons stated below.

Applicant's remarks filed on January 10, 2011 have been fully considered but they are not persuasive. Applicant has merely stated that a terminal disclaimer will be provided when necessary. Since applicant has not provided any rebuttal arguments addressing this rejection, this rejection is maintained.

### **Conclusion**

No claim is allowed.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANA SHIN whose telephone number is (571)272-8008. The examiner can normally be reached on Monday through Friday, 7am-3:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Calamita (AU1637, Acting SPE) can be reached on 571-272-2876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dana Shin  
Primary Examiner  
Art Unit 1635

/Dana Shin/  
Primary Examiner, Art Unit 1635